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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/577,209

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Arnoldo Valenzuela

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10/06/2004

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EXAMINER

SHAFFER, RICKY D

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/577,209

Applicant(s)

VALENZUELA ET AL

Examiner

Ricky D. Shafer

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 14-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election with traverse of Group I (claims 1-13) in the communication filed on June 25, 2004 is acknowledged. The traversal is on the ground(s) that Groups II and III are closely related to that of the elected Group I and that there would be no serious undue burden to examine Groups II and III of the non-elected inventions along with the elected invention. This is not found persuasive because the restriction requirement set forth in the communication mailed December 29, 2003 clearly demonstrates distinctness based on the claimed structural differences between the various invention and burden between each of the patentably distinct inventions. Continued search and examination of claim(s) to a non-elected invention having substantially different structural limitations is a prima facie showing of burden. Applicant may overcome the requirement for restriction by presenting an allowable linking claim or by providing a clear admission on the record that the claim(s) drawn to a given non-elected invention is not patentably distinct from the elected invention.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 14-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on June 25, 2004.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 3-6, 8, 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Pichel ('533).

Pichel discloses a method of manufacturing a telescope mirror comprising the steps of: (a) providing a mandrel (10,13) defining the geometry of the telescope mirror, (b) depositing a reflective layer (16) on the mandrel surface, (c) electroforming a mirror body (17) onto the reflective layer by an electrochemical process, (d) releasing the mirror body with the reflective layer from the mandrel, wherein the electroforming process and the release process are controlled such that the building up of internal mechanical tension within the mirror body is suppressed (see column 4, lines 4-21), wherein the mandrel is cleaned (see column 2, lines 68-71 and column 3, lines 59-70) between the method steps (a) and (b) and wherein a supporting structure (18) is attached to the mirror body. Note figures 1-8 along with the associated description thereof.

5. Claims 1, 3-6, 8, 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Jochim ('469).

Jochim discloses a method of manufacturing a telescope mirror comprising the steps of: (a) providing a mandrel (10,13) defining the geometry of the telescope mirror, (b) depositing a reflective layer (16) on the mandrel surface, (c) electroforming a mirror body (17) onto the reflective layer by an electrochemical process, (d) releasing the mirror body with the reflective layer from the mandrel, wherein the electroforming process and the release process are controlled such that the building up of internal mechanical tension within the mirror body is suppressed (see column 4, lines 2-12), wherein the mandrel is cleaned (see column 2, lines 68-72 and column 3, lines 55-66) between the method steps (a) and (b) and wherein a supporting

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structure (18) is attached to the mirror body. Note figures 1-7 along with the associated description thereof.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pichel ('533) or Jochim ('469) in view of George et al ('944) or Vaaler ('376).

Pichel and Jochim each discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that the an internal mechanical tension is measured during the electroforming process using an additional electroforming sample which is electroformed in parallel and/or an electronic stress measurement device.

George et al and Vaaler each teach it is well known to use a stress measurement device in the same field of endeavor for the purpose monitoring and controlling the internal stress produced during the electroforming process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the electroforming apparatus of Pichel or Jochim to include a stress measurement device, as taught by George et al or Vaaler, in order to monitor and control the internal stress produced during the electroforming process so as to obtain an uniform stress free deposition.

8. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pichel ('533) or Jochim ('469) in view of Engelhaupt et al ('611).

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Pichel and Jochim each discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that the electroforming step is carried out using an electrochemical liquid having a temperature between 40 degrees Celsius and 70 degrees Celsius.

Engelhaupt et al teaches it is known to use an electrochemical liquid having a bath temperature between 40 degrees Celsius and 70 degrees in the same field of endeavor for the purpose controlling the internal stress produced during the electroforming process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bath of the electroforming apparatus of Pichel or Jochim to include a temperature between 40 degrees Celsius and 70 degrees, as taught by Engelhaupt et al, in order to control the internal stress produced during the electroforming process so as to obtain an uniform stress free deposition.

9. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pichel ('533) or Jochim ('469) in view of Howden ('798) or Marmo et al ('276).

Pichel and Jochim each discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that a supporting structure is attached to the mirror body after releasing the mirror body from the mandrel.

Howden and Marmo et al each teach it is well known to use additional supporting structures in the same field of endeavor for the purpose supporting an electroformed mirror body.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the a supporting structure of Pichel or Jochim to include an additional supporting structure, as taught by Engelhaupt et al or Marmo et al, in order to attach the mirror body to a desired mounting/supporting platform.

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10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pichel ('533) or Jochim ('469) in view of Howden ('798).

Pichel and Jochim each discloses all of the subject matter claimed, note the above explanation, except for explicitly stating that gold is used as a material of the reflective layer.

Howden teaches it is known to use gold as a reflective layer in the same field of endeavor for the purpose of meeting infrared and/or short wavelength requirements.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the reflective layer and/or mirror body of Pichel or Jochim to include a gold reflective layer, as taught by Howden, in order to operate in the infrared and/or at short wavelengths.

11. The disclosure is objected to because of the following informalities:

The specification fails to include the headings "Background of the Invention", "Brief Summary of the Invention", "Brief Description of the Drawings", and "Detailed Description of the Invention". In addition, On page 7, line 11 of the specification, the language --by a cleaning chamber 14-- should be insert after "cleaned".

Appropriate correction is required.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricky D. Shafer whose telephone number is (571) 272-2320. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RDS

October, 03, 2004

Paul S. Shif
DICKINSON CHAFFIN
PATENT ATTORNEYS
ART UNIT 2872